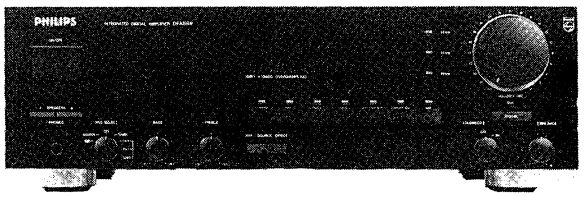
Digital amplifier 70FA888/00R/05R

Service
Service
Service

DFA888/00R/05R



Service Manual

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Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçic

Subject to modification
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PHILIPS
Published by Service Consumer Electronics
CS 19 712

SPECIFICATION

General	Nominal value	Typical value
Mains voltage	: 220V ~ (/00R) : 110/120/220/240V ~ (/01R) : 240V ~ (/05R)	: 220V ~ (/00R) : 110/120/220/240V ~ (/01R) : 240V ~ (/05R)
Mains frequency	: 50 – 60 Hz	: 50 – 60 Hz
Power consumption	: 330W	: 330W
Dimensions (WxHxD)	: 420 x 118 x 334 mm	: 420 x 118 x 334 mm
Weight	: 10.5 kg	: 10.5 kg

Amplifier

Output power		: 80W in 8Ω (IEC)	: 85W in 8Ω (IEC)
Distortion			
T.H.D.		: ⩽ 0.03% at 1 kHz : ⩽ 0.03% at 63 Hz – 12.5 kHz (IEC)	: ⩽ 0.008% at 1 kHz : ⩽ 0.02% at 63 Hz – 12.5 kHz (IEC)
Intermodulation		: ⩽ 0.03% at 60/7000 Hz 4:1	: ⩽ 0.01% at 60/7000 Hz 4:1
Frequency characteristic			
Phono input	tone control	: from 20 Hz – 20 kHz ±1 dB (IEC/RIAA)	: from 20 Hz – 20 kHz ±0.5 dB (IEC/RIAA)
Other inputs	neutral	: from 10 Hz – 50 kHz ±1 dB	: from 10 Hz – 60 kHz ±1 dB
Bass control		: at 100 Hz +8 dB to –8 dB ±1 dB	: at 100 Hz +8 dB to –8 dB
Treble control		: at 10 kHz +8 dB to –8 dB ±1 dB	: at 10 kHz +8 dB to –8 dB
Loudness		: at 100 Hz +6 dB ±1 dB : at 10 kHz +4 dB ±1 dB (Tap position)	: at 100 Hz +6 dB : at 10 kHz +4 dB (Tap position)
Signal/noise ratio weighted (A-curve)			
Phono input	(MM)	: for 80W output ⩾ 80 dB (IEC)	: for 80W output ⩾ 83 dB (IEC)
	(MC)	: for 80W output ⩾ 70 dB (IEC)	: for 80W output ⩾ 72 dB (IEC)
Other inputs		: for 80W output ⩾ 85 dB (IEC)	: for 80W output ⩾ 89 dB (IEC)
Channel separation		: at 1000 Hz ⩾ 65 dB : at 250 Hz – 10 kHz ⩾ 45 dB	: at 100 Hz ⩾ 70 dB : at 250 Hz – 10 kHz ⩾ 55 dB
Input sensitivity/Input impedance			
Audio			
Phono	(MM)	: 2.5 mV/47 kΩ	: 2.5 mV/47 kΩ
	(MC)	: 250 μV/150Ω	: 250 μV/150Ω
Tuner/CD/Aux/Tape		: 150 mV/17 kΩ	: 150 mV/20 kΩ
TV/Video		: 150 mV/17 kΩ	: 150 mV/20 kΩ
Output level/Output impedance			
Tape		: 450 mV/590Ω (Phono 7.75 mV 1 kHz input)	: 450 mV/590Ω (Phono 7.75 mV 1 kHz input)

Digital Section

Frequency characteristic	: from 10 Hz – 20 kHz ±2.0 dB	: from 10 Hz – 20 kHz ±1.0 dB
Distortion (T.H.D.)	: 0.008% at 1 kHz	: 0.0035% at 1 kHz
Signal/noise ratio weighted (A-curve)	: 100 dB at tape out	: 106 dB at tape out

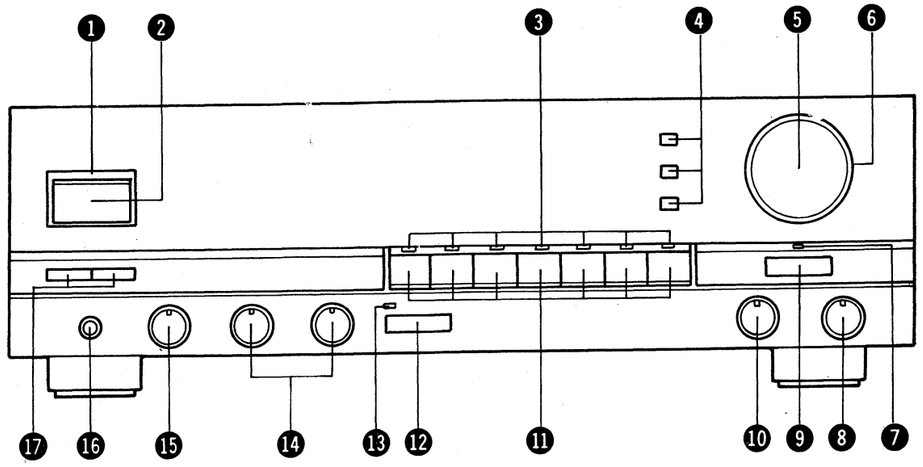
(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

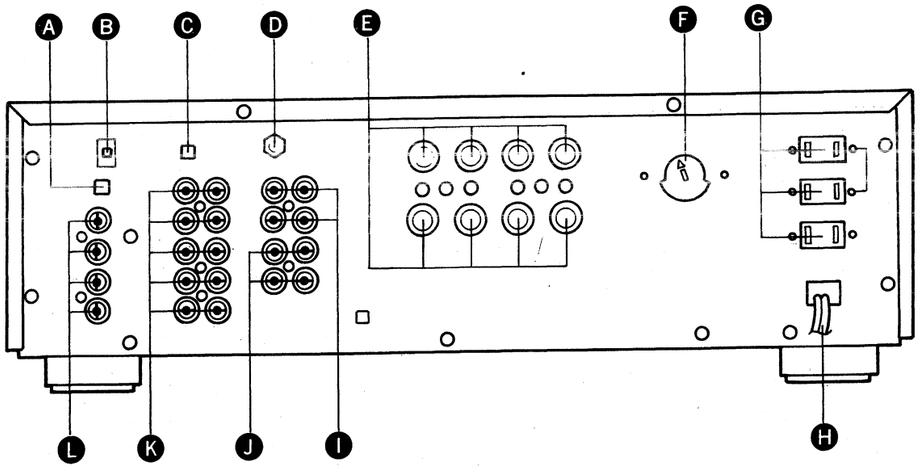
(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.



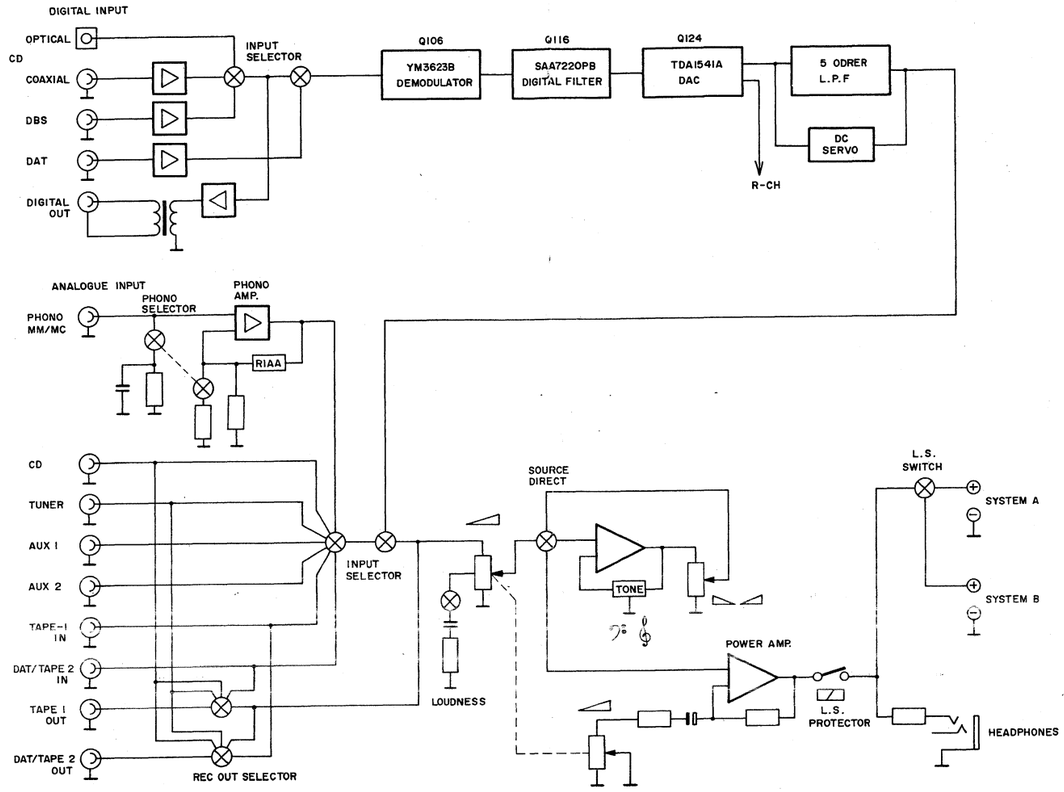


CONNECTIONS AND CONTROLS

1	Mains indicator	VZ01
2	Mains switch	S901
3	Function indicator	DU01~DU05, DU09, DU10
4	Sampling frequency indicator	DU61~DU63
5	Volume control	RG19
6	Volume illumination	VZ51, VZ52
7	Digital indicator	DU06
8	Balance control	RE51
9	Digital switch	SU08
10	Loudness switch	SE51
11	Function switch	SU01~SU07
12	Source direct switch	SU09
13	Source direct indicator	DU07
14	Tone control	RE21, RE22
15	Rec selector	SE01
16	Headphone socket	JW81
17	LS switch	SW51

A	CD input selector switch		S101
B	CD (Opt.) input		J101
C	Phono selector switch		S401
D	Ground terminal		J053
E	LS output		JW01
F	Voltage selector	(/01R only)	J091
G	AC outlet	(/01R only)	J051
H	Mains cord		W001
I	Tape 1 play/rec.		JJ01
J	DAT/tape 2 play/rec.		JJ02
K	Analogue input		JV01, JV02
L	Digital input		J102

Block Diagram



ADJUSTMENT

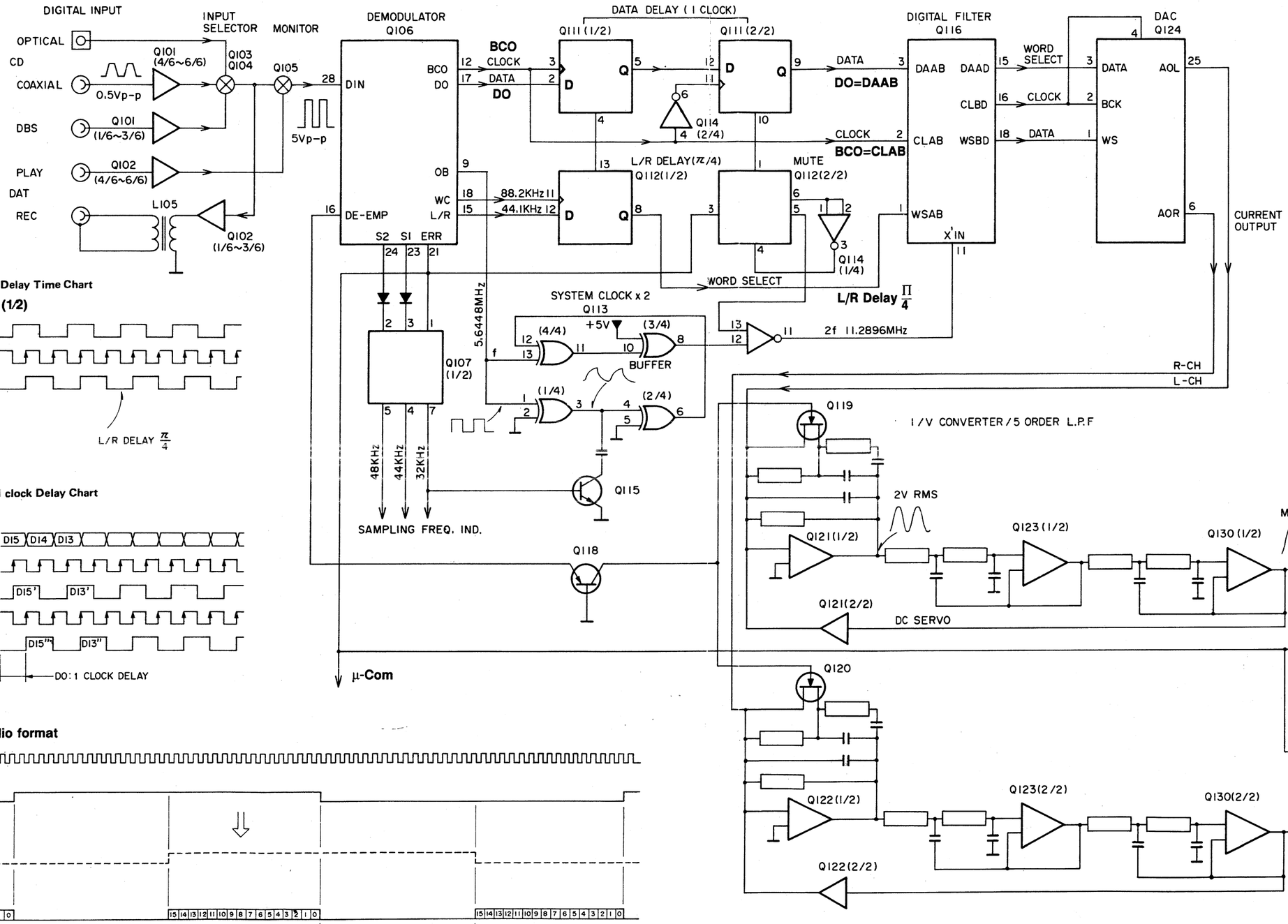
Idling Current

SK... SWITCH	SIGNAL	TO	VOLUME	ADJUST	OSCILLOSCOPE	D.C. METER INDICATOR
			Min.	Lch R751		Lch TP2(+), TP1(–) DC 7 mV (19.4 mA)
				Rch R752		Rch TP4(+), TP3(–) DC 7 mV (19.4 mA)

***Adjustment must be made approx. one (1) minute after power switch has been turned on.**

CS 19 714

Block Diagram of Digital Circuit



• L/R clock Delay Time Chart

See Q112 (1/2)

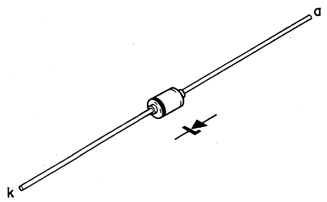
• Data = Do I clock Delay Chart

See Q111

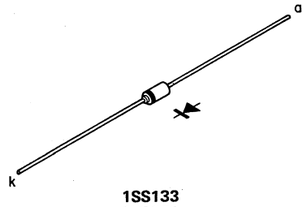
•Digital audio format

(Fig. 2)

Semiconductor Layout



MTZJ3.9A
RD4.7JB2/MTZJ4.7B
RD5.6JB2/MTZJ5.6B
RD15JB3/MTZJ16A



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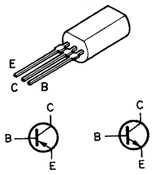

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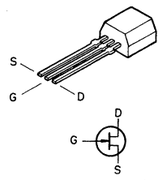

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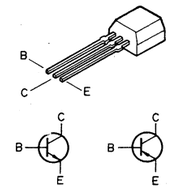

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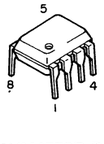

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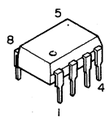

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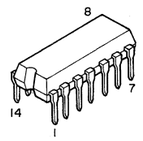

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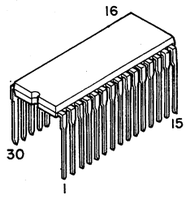

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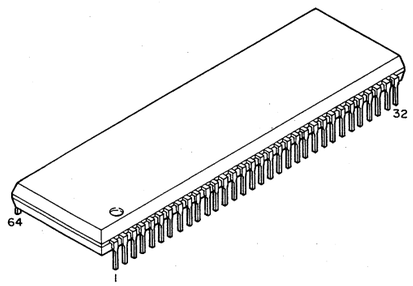

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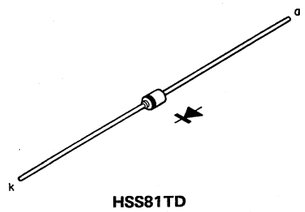

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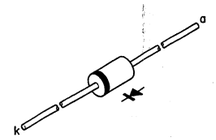

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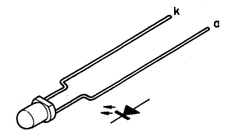

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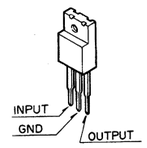

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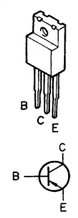

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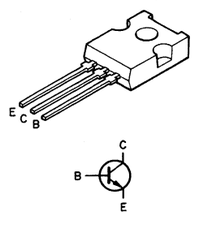

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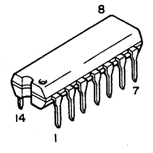

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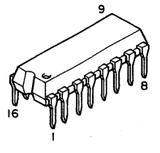

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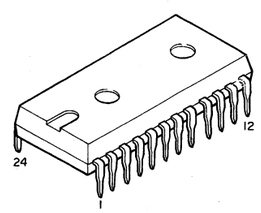

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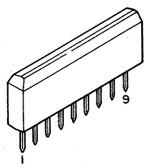

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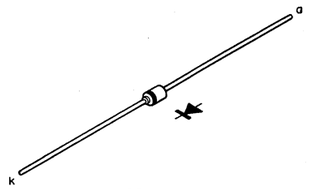

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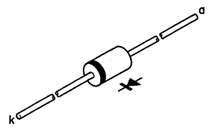

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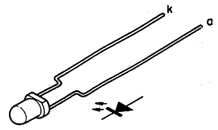

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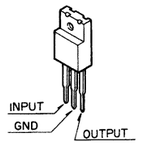

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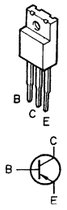

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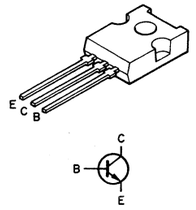

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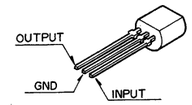

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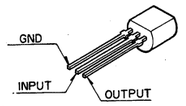

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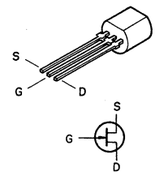

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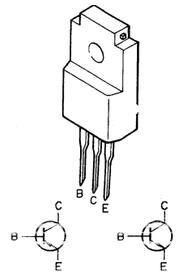

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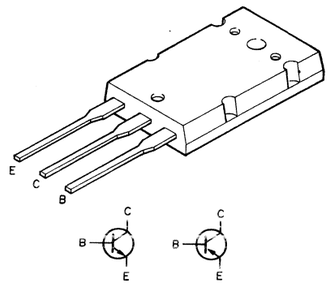

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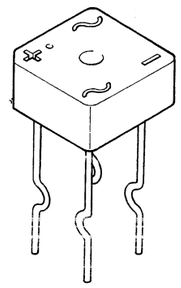

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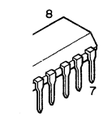

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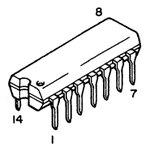

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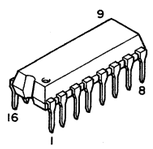

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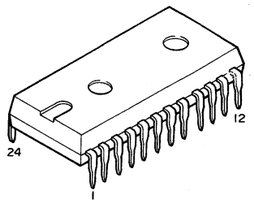

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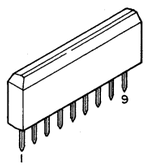

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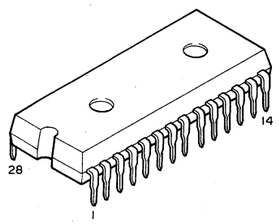

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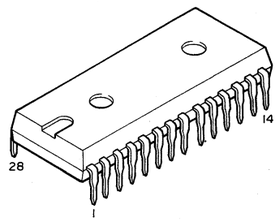

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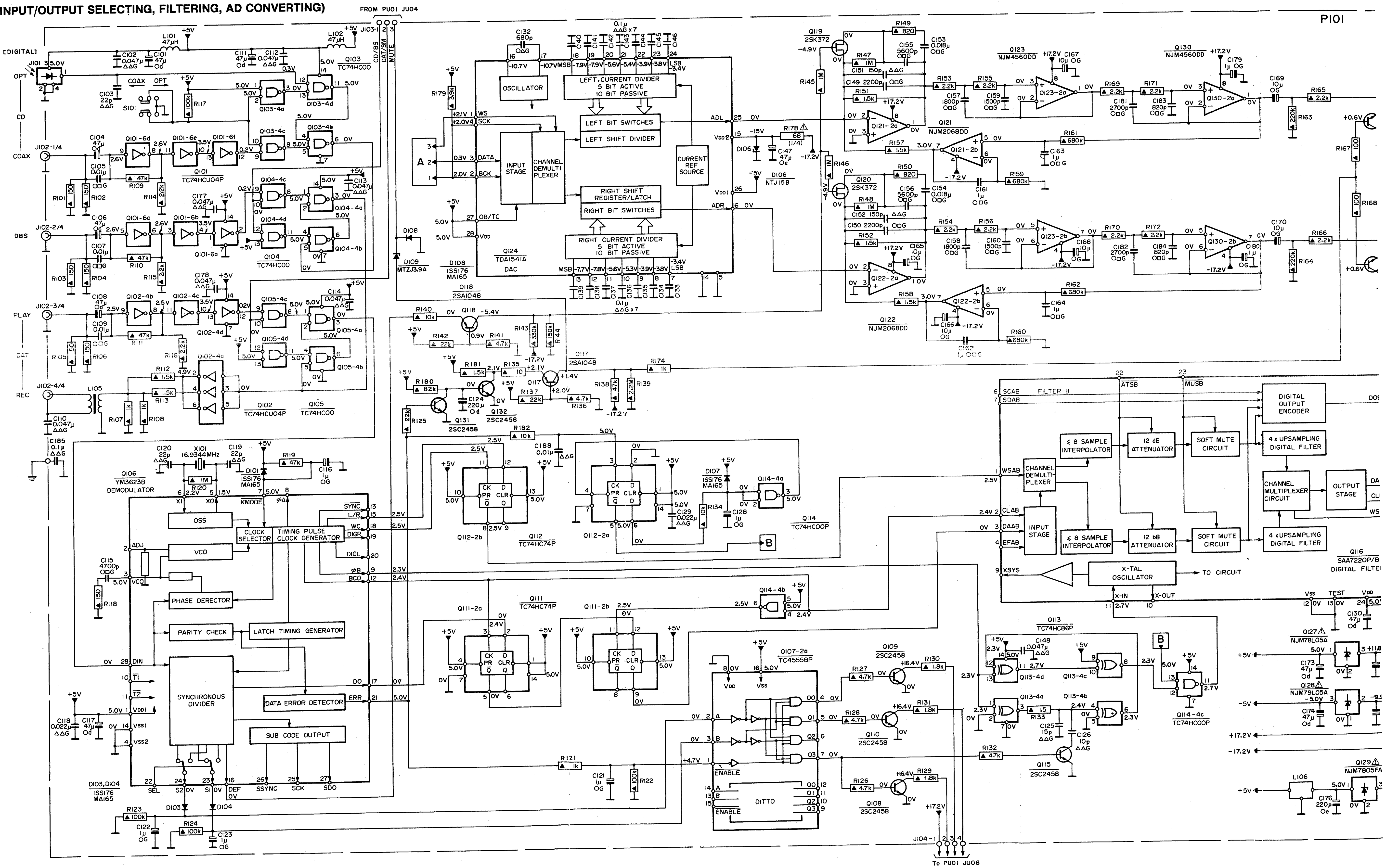
SCHEMATIC DIAGRAMS

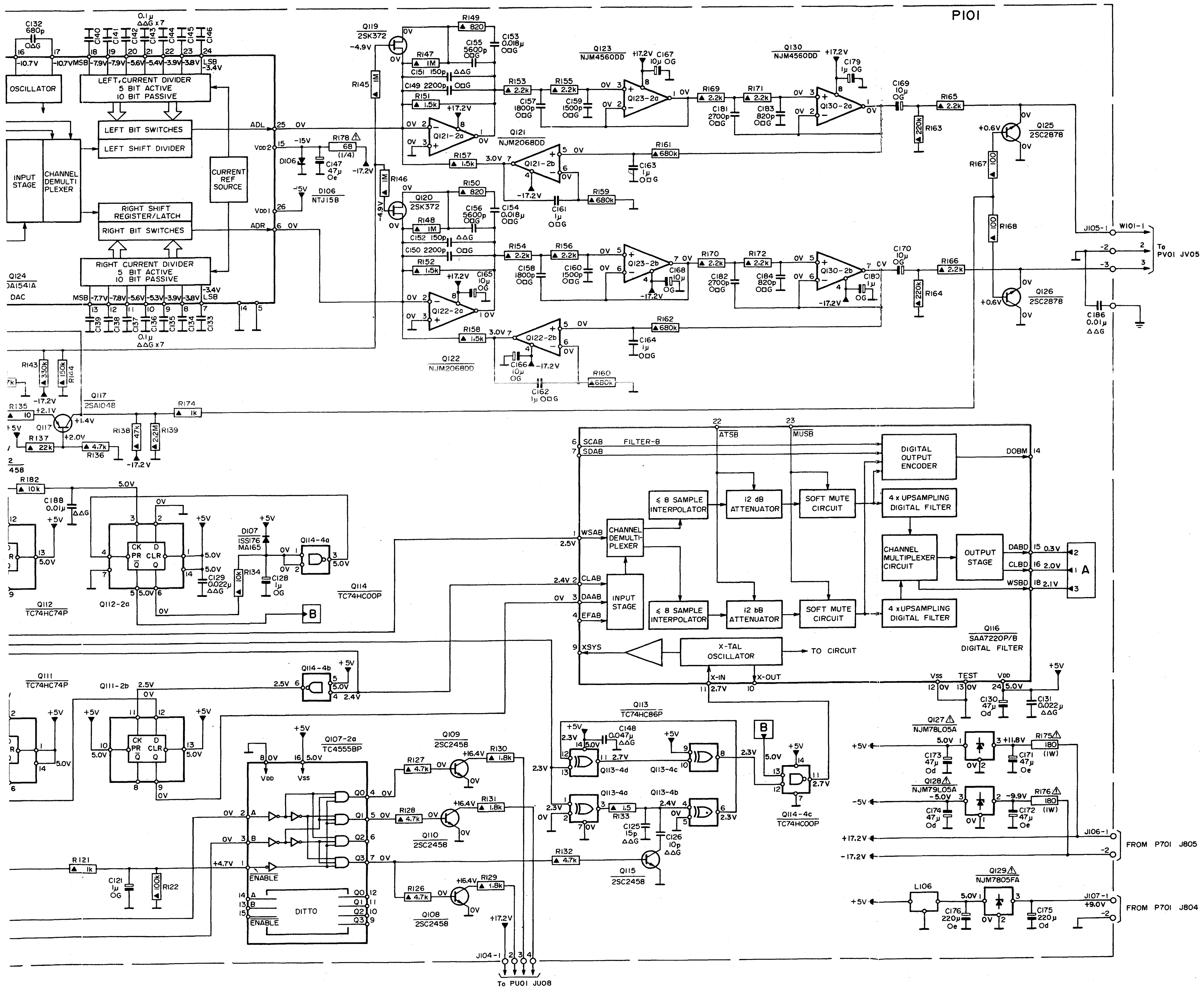
R	R123 R124 R101 ~ R120 R125 R180 R181 R136 ~ R144 R182 R121 R122 R174 R178 R126 ~ R131 R145 ~ R160 R132 R133 R161 R162 R169 ~ R172 R163 ~ R168
C	C185 C118 C117 C115 C101 ~ C110 C120 C122 C119 C123 C177 C178 C111 ~ C114 C116 C124 C132 C188 C121 C133 ~ C140 C129 C128 C147 C149 ~ C156 C157 ~ C168 C148 C125 C126 C180 ~ C184 C179 C169 ~ C176
Q – D	Q101 ~ Q106 D103 D104 D101 D108 D109 Q131 Q118 Q132 Q112 Q111 Q117 Q124 D107 D106 Q114-4a Q114-4b Q107-2a Q119 Q120 Q108 ~ Q110 Q121 Q122 Q123 Q113 Q116 Q114-4c Q130 Q125 ~
L – S – X	L105 S101 L101 X101 L102 L106

DIGITAL (INPUT/OUTPUT SELECTING, FILTERING, AD CONVERTING)



SCHEMATIC DIAGRAMS

R144 R182	R121 R122 R174		R178	R126 ~ R131	R145 ~ R160	R132	R133	R161 R162	R169 ~ R172		R163 ~ R168	R175 R176		R
C132 C188 C121	C133 ~ C140 C129	C128 C147		C149 ~ C156	C157 ~ C168		C148	C125 C126	C180 ~ C184	C179	C169 ~ C176		C186	C
Q112 Q111 Q117 Q124		D107 D106 Q114-4a	Q114-4b	Q107-2a Q119 Q120	Q108 ~ Q110 Q121 Q122		Q123	Q113 Q116	Q114-4c	Q130		Q125 ~ Q129		Q-D
											L106			L-S-X

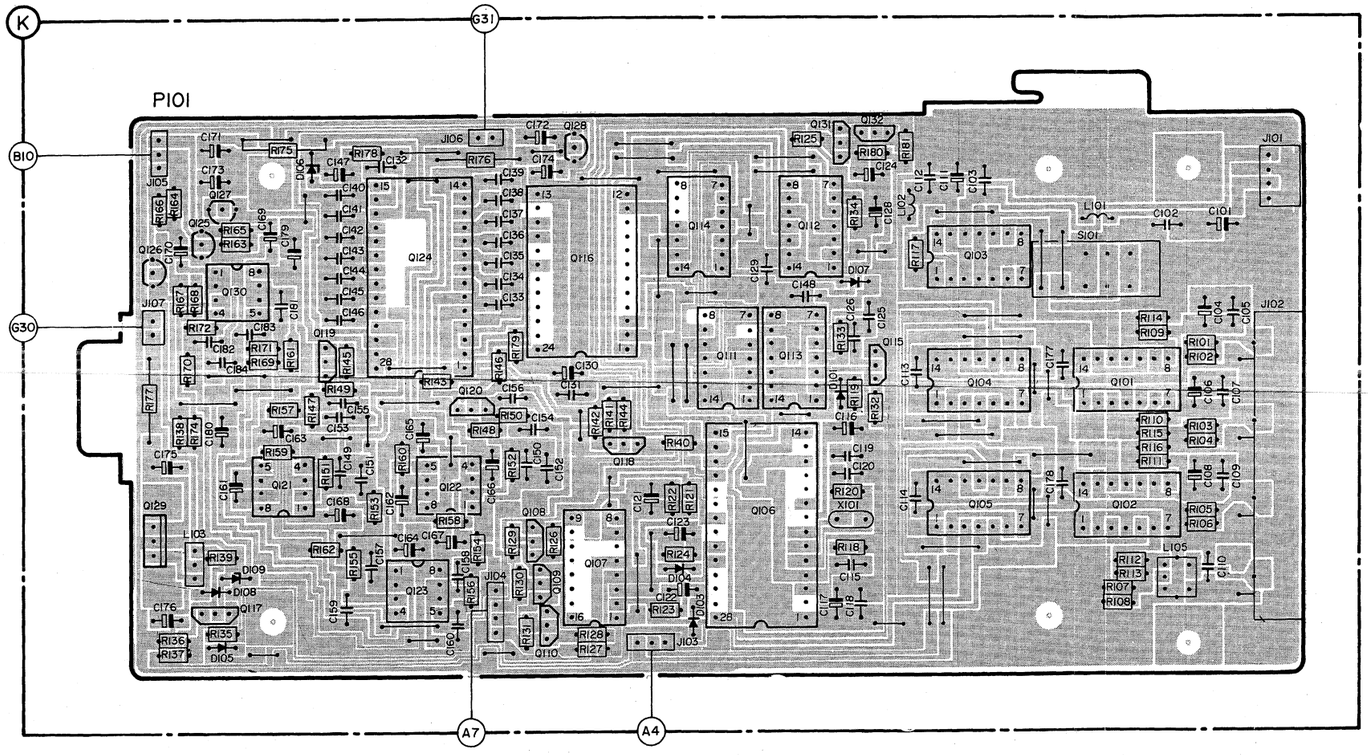


NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

WIRING DIAGRAMS

R	R163～R172 R175 R178 R176 R146 R179 R125 R134 R180 R181 R117	R
	R177 R138 R174 R157 R161 R147 R151 R149 R145 R160 R143 R148 R150 R152 R142 R141 R144 R140 R133 R132 R107～R116	
	R135～R137 R139 R159 R162 R155 R153 R158 R156 R154 R126～R131 R121～R124 R118～R120 R101～R106	
C	C170 C171 C173 C169 C179 C140～C147 C133～C139 C172 C174 C129 C148 C124 C128 C112 C111 C103 C102 C101	C
	C175 C180～C184 C163 C153 C155 C149 C151 C164～C167 C156 C154 C131 C130 C121～C123 C126 C125 C177 C104～C110	
	C176 C161 C168 C162 C157～C160 C150 C152 C113～C120 C178	
Q	Q125～Q127 Q130 Q119 Q124 Q120 Q128 Q116 Q111～Q115 Q131 Q132 Q101～Q105	Q
	Q129 Q117 Q121～Q123 Q107～Q110 Q118 Q106	
D	D105 D108 D109 D106 D104 D103 D101 D107	D
L-S-X	L103 X101 L102 S101 L101 L105	L-S-X

DIGITAL (INPUT/OUTPUT SELECTING, FILTERING, AD CONVERTING)



△△*	Ceramic plate Tuning ⩽ 120 pF NP.0 Others	2% −20/+80%
●●*	Polyester flat foil	10%
□*	Metalized polyester flat film	10%
○□*	Polyester flat foil small size (Mylar)	10%
○△*	Polysterene film/foil	1%
■▲*	Tubular ceramic	
○*	Miniature single	
○○*	Subminiature tantalum	± 20%

*a = 2.5 V
b = 3.15 V or 4 V
c = 6.3 V
d = 10 V
e = 16 V
f = 25 V
g = 40 V
h = 63 V
j = 100 V
l = 125 V
m = 150 V
n = 160 V
q = 200 V
r = 250 V
s = 300 V
t = 350 V
u = 400 V
v = 500 V
w = 630 V
x = 1000 V
A = 1.6 V
B = 6 V
C = 12 V
D = 15 V
E = 20 V
F = 35 V
G = 50 V
H = 75 V
I = 80 V

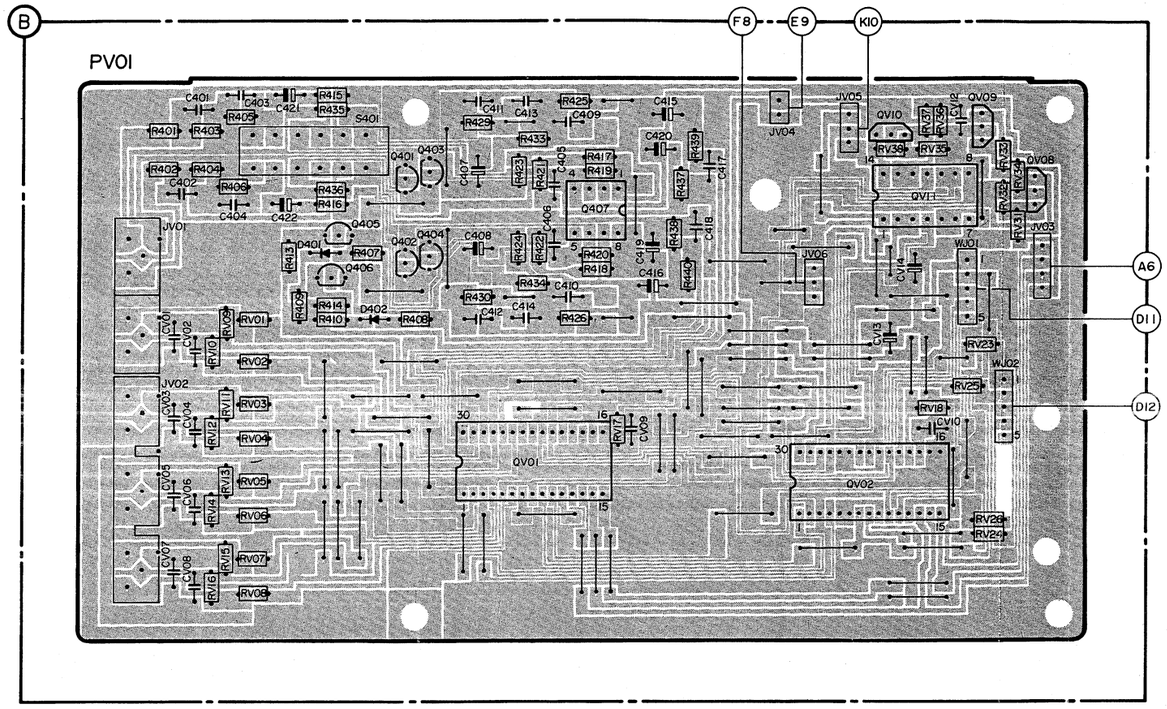
	Carbon film 0.2 W	70°C	5%
	Carbon film 0.33 W	70°C	5%
	Metal film 0.33 W	70°C	5%
	Carbon film 0.5 W	70°C	5%
	Carbon film 0.67 W	70°C	5%
	Carbon film 1.15 W	70°C	5%

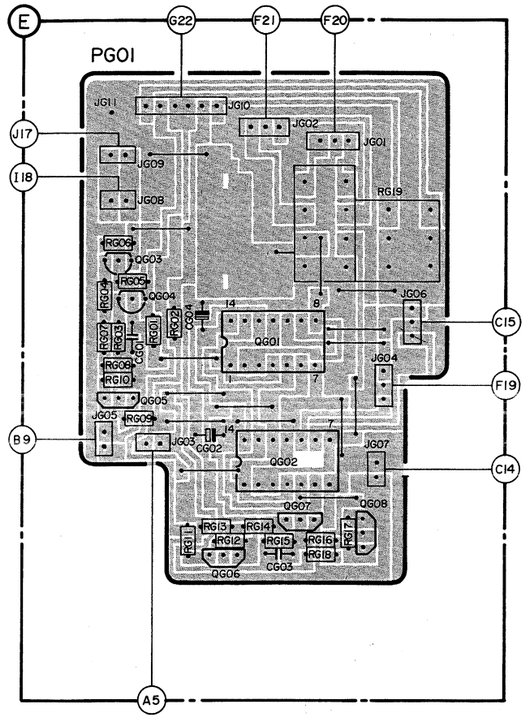
Ⓒ Chip component

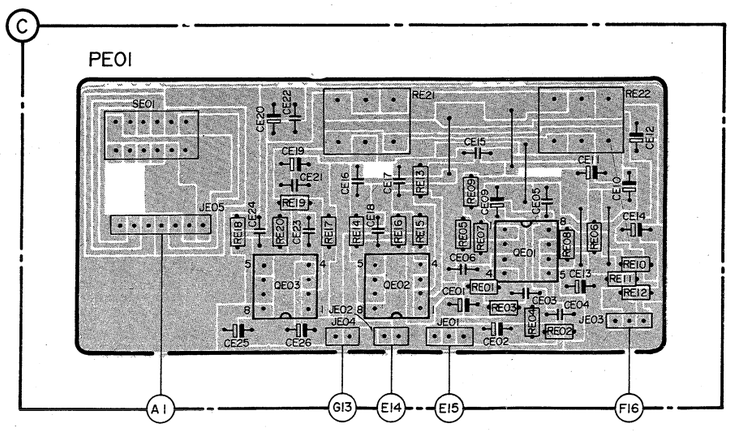
WIRING DIAGRAMS

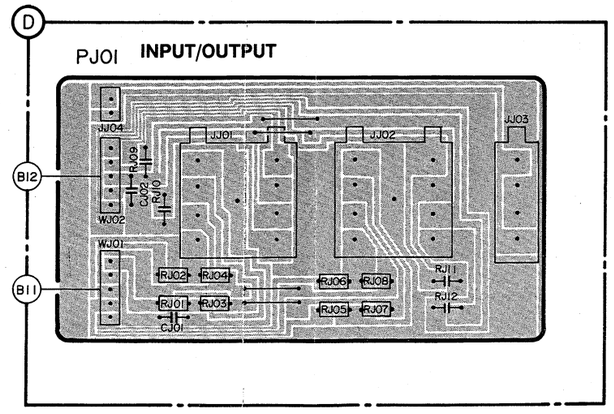
R	R401～R406 R413～R416 R407～R410 R429 R433 R417～R426 R437～R440 RV35～RV38 RV31～RV34 RG01～RG10 RV01～RV16 R435 R436 R430 R434 RV17 RV18 RV23～RV26 RG11～RG18 RG19 RE13～RE20 RE21 RE01～RE12 RE22 RJ01～RJ04 RJ05～RJ08 RE53～RE56 RE51	R
C	C401～C404 C421 C405～C414 C415～C420 CV13 CV14 CV10 CV12 CV01 CV08 C422 CV09 CE19～CE26 CE15～CE18 CE01～CE06 CE09～CE14 CJ02 RJ09 RJ10 CJ01 RJ11 RJ12 CE51～CE54	C
Q	Q401～Q406 QV01 Q407 QV02 QV08～QV11 QG03 QG05 QG01 QG02 QE03 QE02 QE01 QG06 QG08	Q
D	D401 D402	D
S	S401 SE51	S

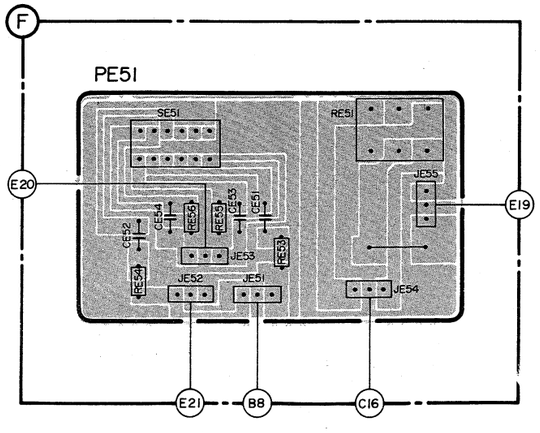
ANALOG (INPUT/OUTPUT SELECTING)







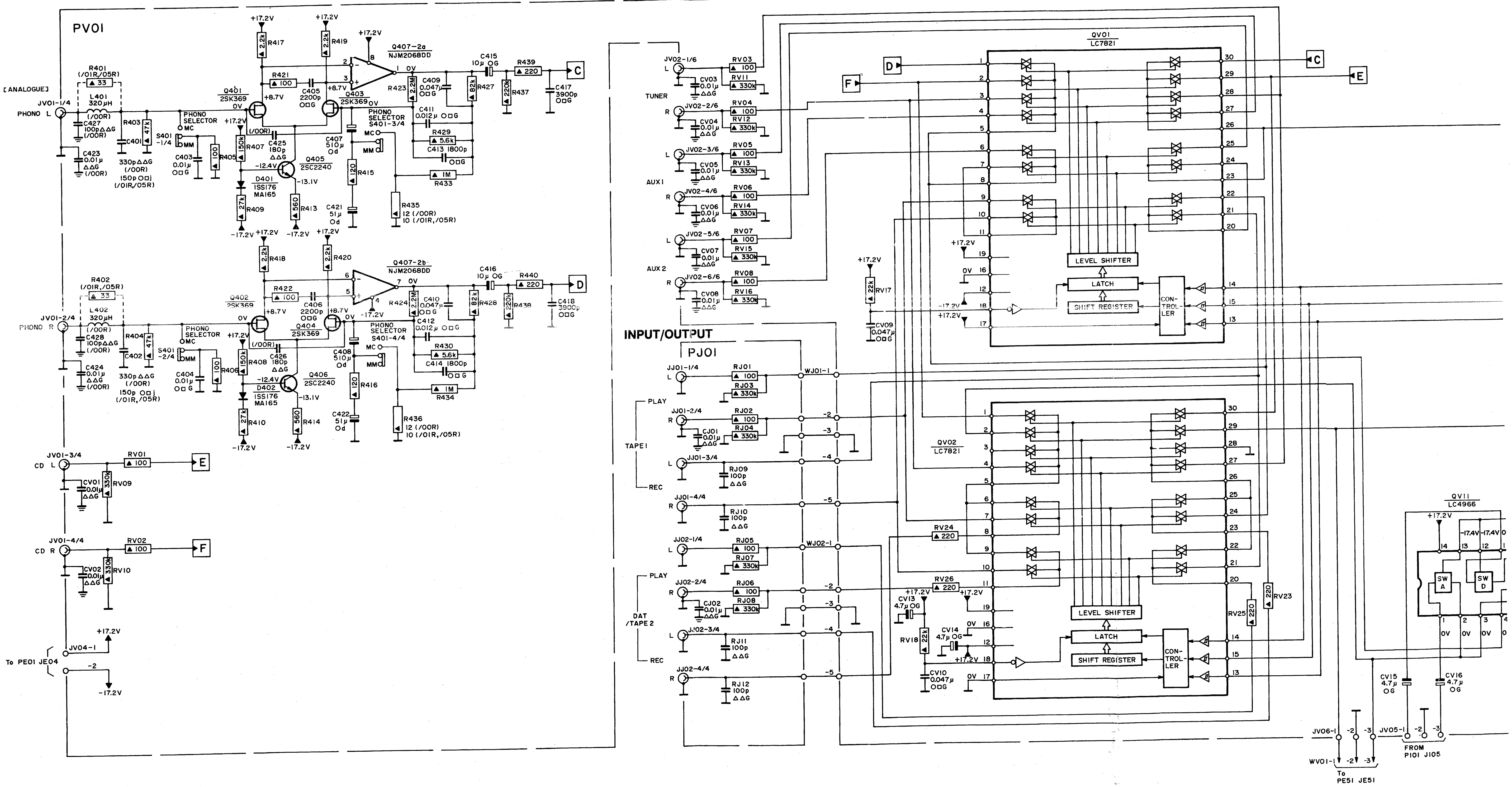




SCHEMATIC DIAGRAMS

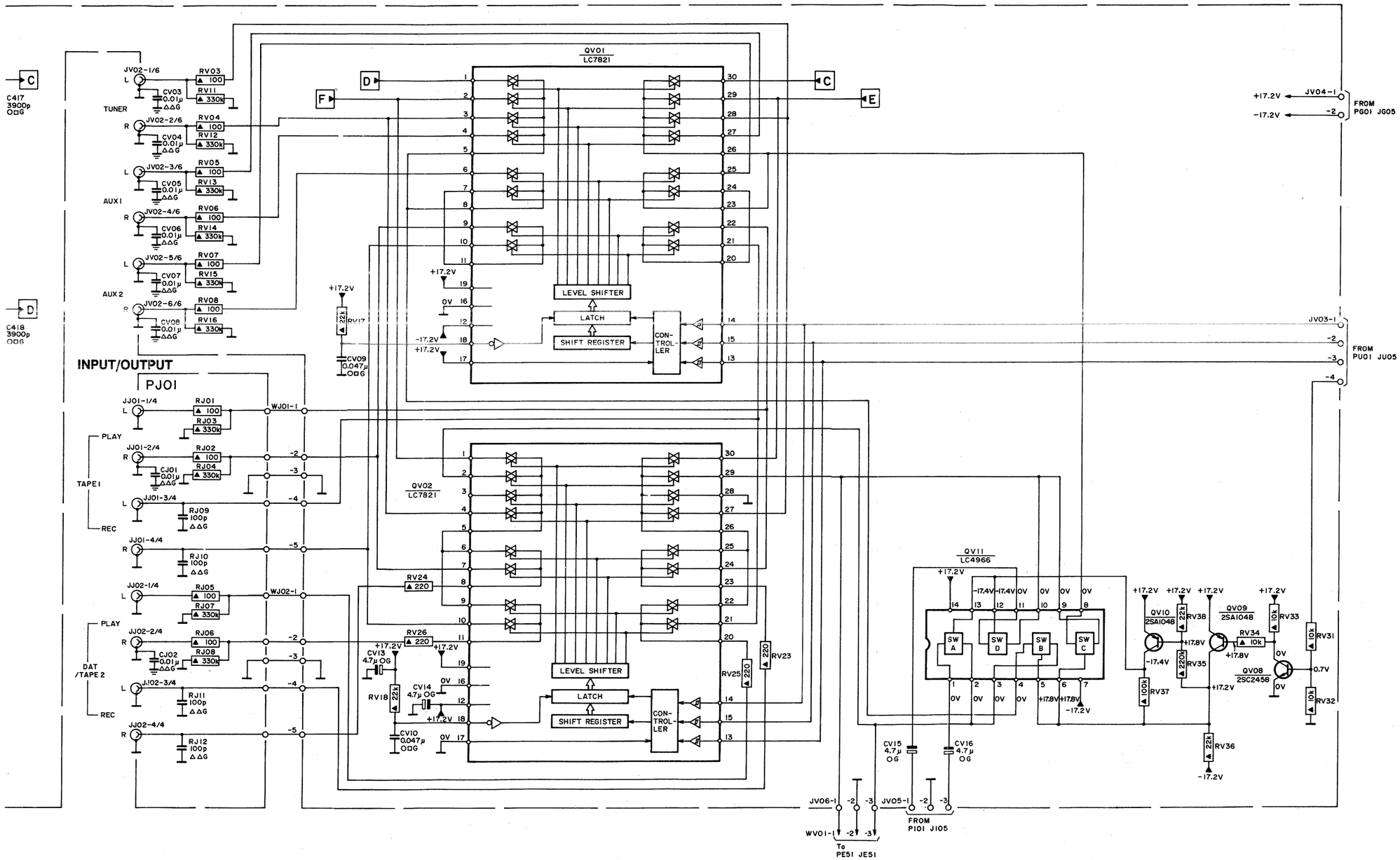
R	RV09 RV10 R401～R410 RV01 RV02	R417～R422 R413～R416	R423 R424 R433～R436 R427～R430 R437～R440		RV03～RV08 RV11～RV16 RJ01～RJ12	RV17	RV18 RV24 RV26	RV25 RV23	
C	C423 C424 CV01 CV02 C401～C404	C425 C426 C405～C408 C421 C422	C409～C416	C417 C418	CV03～CV08 CJ01 CJ02	CV09	CV13 CV10 CV14		CV15 CV16
Q	C427 C428	Q401～Q407						QV01 QV02	
D-L-S	L401 L402	D401 D402 S401							

ANALOG (INPUT/OUTPUT SELECTING)



SCHEMATIC DIAGRAMS

	RV03~RV08 RV11~RV16 RJ01~RJ12	RV17	RV18 RV24 RV26	RV25 RV23			RV31~RV38	R
C418	CV03~CV08 CJ01 CJ02	CV09	CV13 CV10 CV14		CV15	CV16		C
			QV01 QV02		QV11		QV08~QV10	Q
								D-L-S



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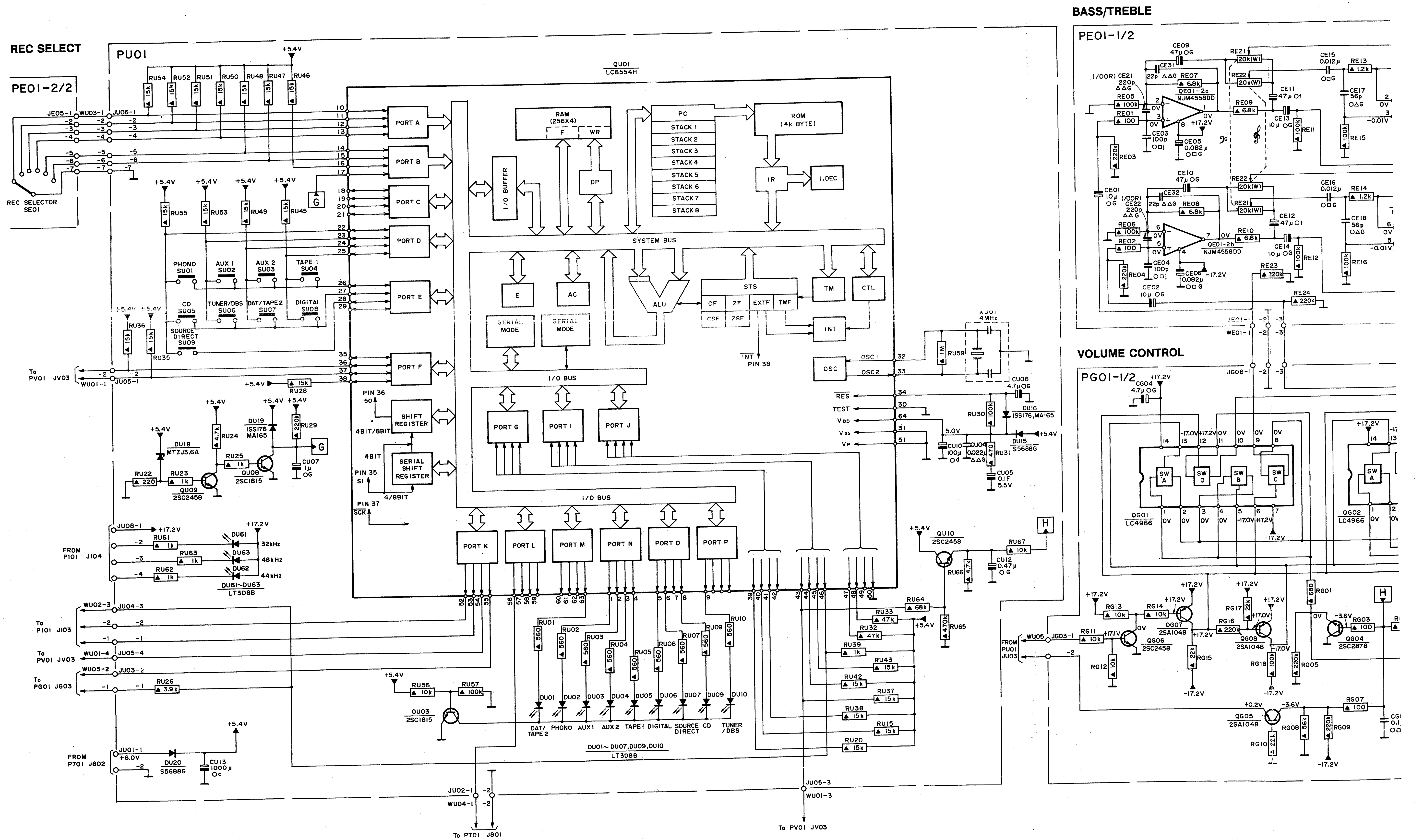
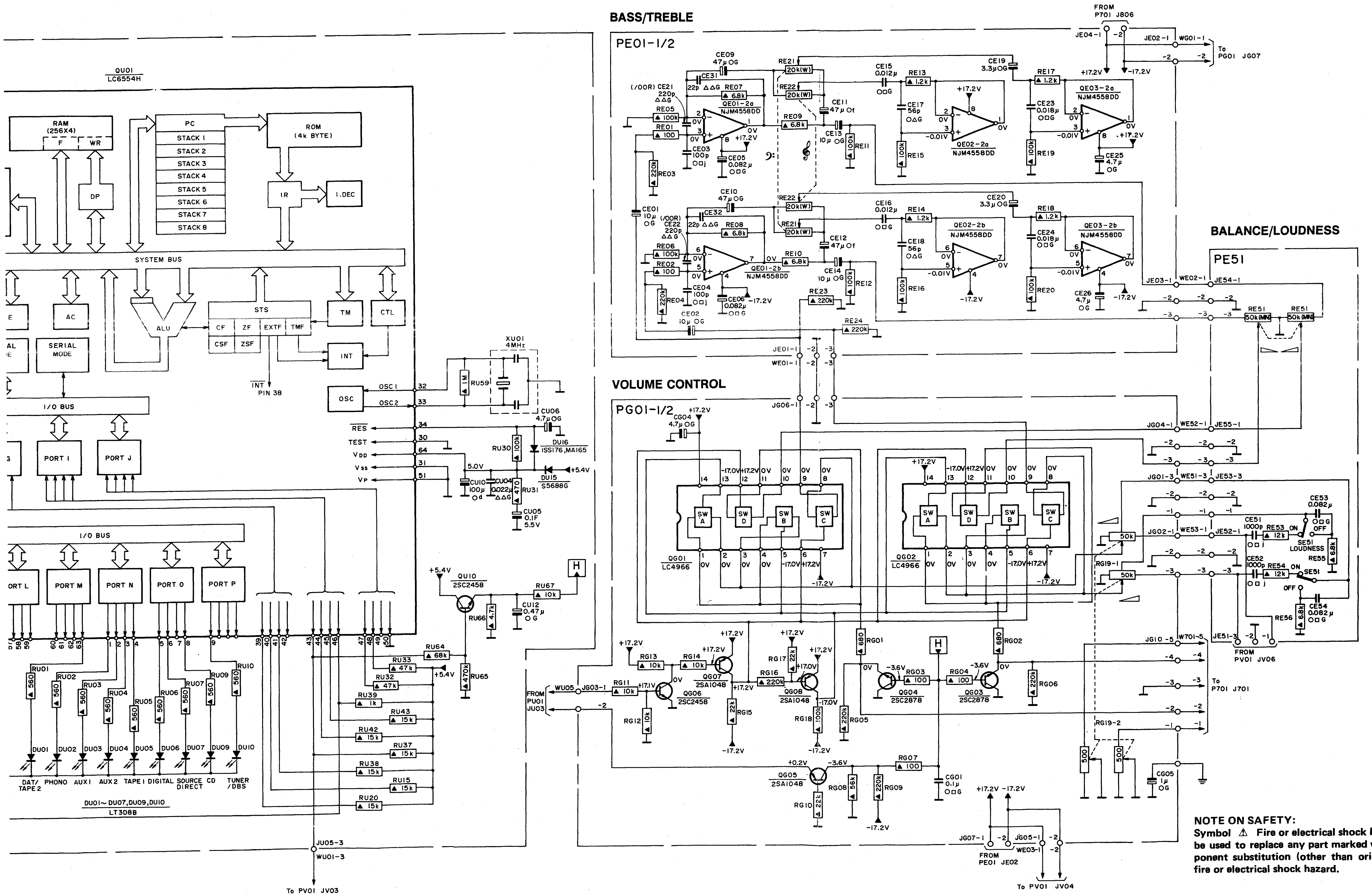
SCHEMATIC DIAGRAMS

R	RU36 RU35	RU45~RU55			RU59	RU30 RU31	RE01~RE12	RE21~RE24	RI
	RU22~RU26 RU61~RU63	RU29	RU56 RU57	RU01~RU07 RU09 RU10	RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~RU67		RG10~RG18		RG01~
C	CU13	CU07			CU10 CU04~CU06	CU12	CE01~CE06 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CE11~CE18	
D-S	SE01	DU18 DU20 SU01~SU09 DU61~DU63 DU19		DU01~DU07 DU09 DU10		DU16 DU15			
Q-L-X	QU09	QU08	QU03	QU01	QU10	XU01	QE01 QG01 QG05~QG08	QG02~QG04	QE



SCHEMATIC DIAGRAMS

R		RU59	RU30 RU31	RE01~RE12	RE21~RE24	RE13~RE20	RE51	
R	RU01~RU07	RU09 RU10	RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~ RU67	RG10~RG18	RG01~RG09	RG19	RE53~RE56	
C			CU10 CU04~CU06 CU12	CE01~CE06 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CE11~CE18	CG01	CE19 CE20 CE23~CE26	CG05 / CE51~CE54
D-S	DU01~DU07	DU09 DU10	DU16 DU15					SE51
Q-L-X	QU01		QU10 XU01	QE01 QG01 QG05~QG08	QG02~QG04	QE02	QE03	



NOTE ON SAFETY:
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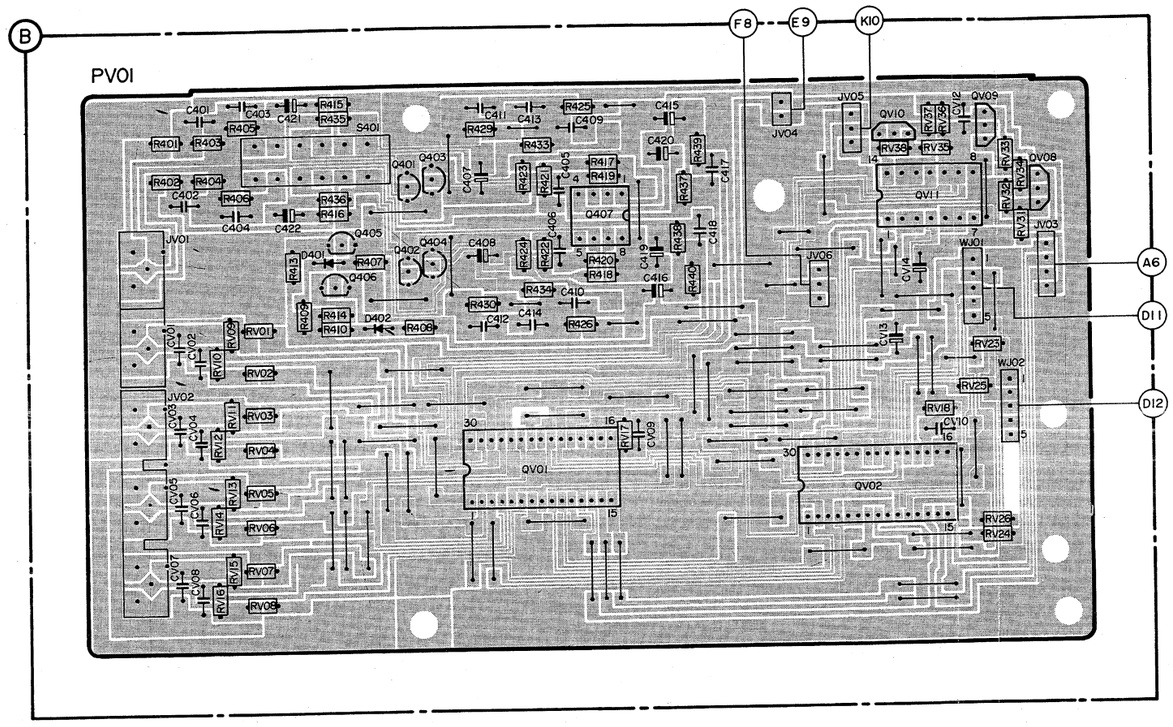
WIRING DIAGRAMS

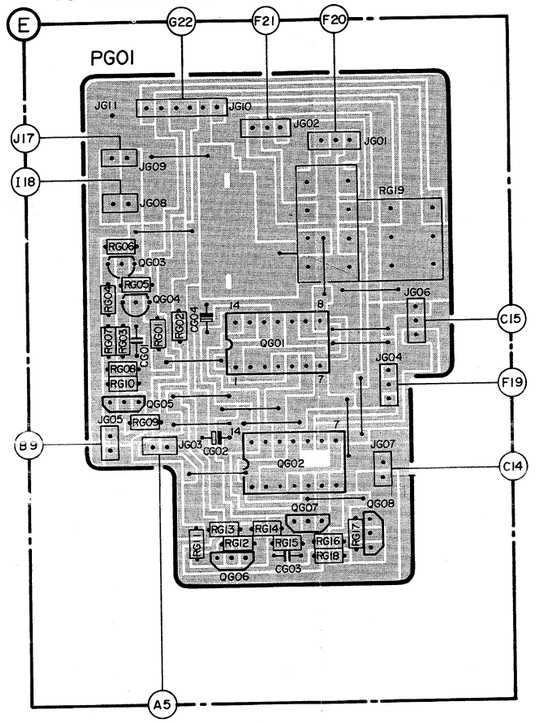
R	R401～R406 R413～R416 R407～R410 R429 R433 R417～R426 R437～R440 RV35～RV38 RV31～RV34 RG01～RG10	R
	RV01～RV16 R435 R436 R430 R434 RV17 RV18 RV23～RV26 RG11～RG18 RG19	
	RE13～RE20 RE21 RE01～RE12 RE22 RJ01～RJ04 RJ05～RJ08 RE53～RE56 RE51	
C	C401～C404 C421 C405～C414 C415～C420 CV13 CV14 CV10 CV12	C
	CV01 CV08 C422 CV09 CJ02 RJ09 RJ10 CJ01 RJ11 RJ12 CE51～CE54	
Q	CE19～CE26 CE15～CE18 CE01～CE06 CE09～CE14 QG03 QG05 QG01 QG02	Q
	Q401～Q406 QV01 Q407 QV02 QV08～QV11 QG06 QG08	
	QE03 QE02 QE01	D
D	D401 D402	S
S	S401 SE51	

VOLUME CONTROL

PV01

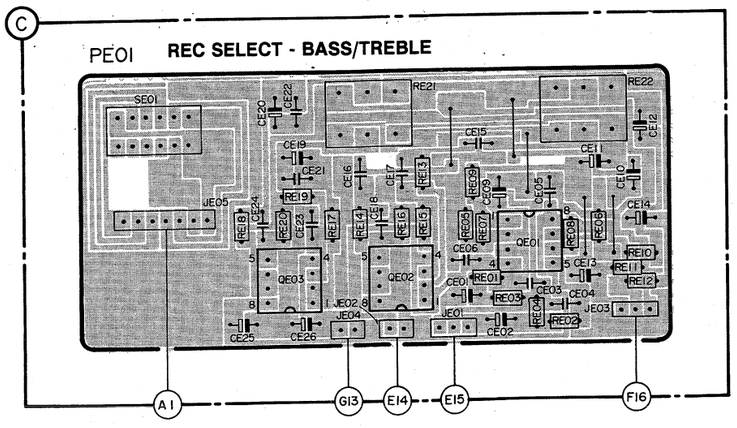


PG01



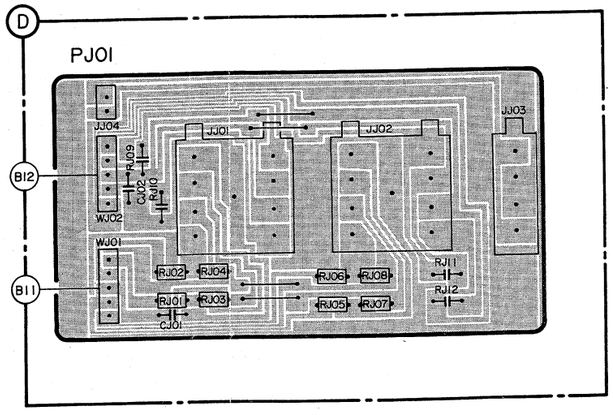
C

PE01 **REC SELECT - BASS/TREBLE**



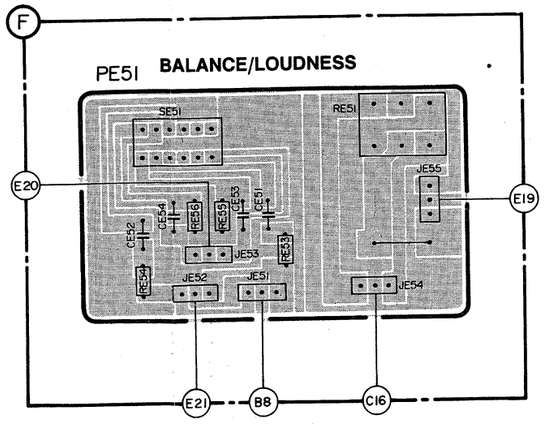
D

PJ01



F

PE51 **BALANCE/LOUDNESS**



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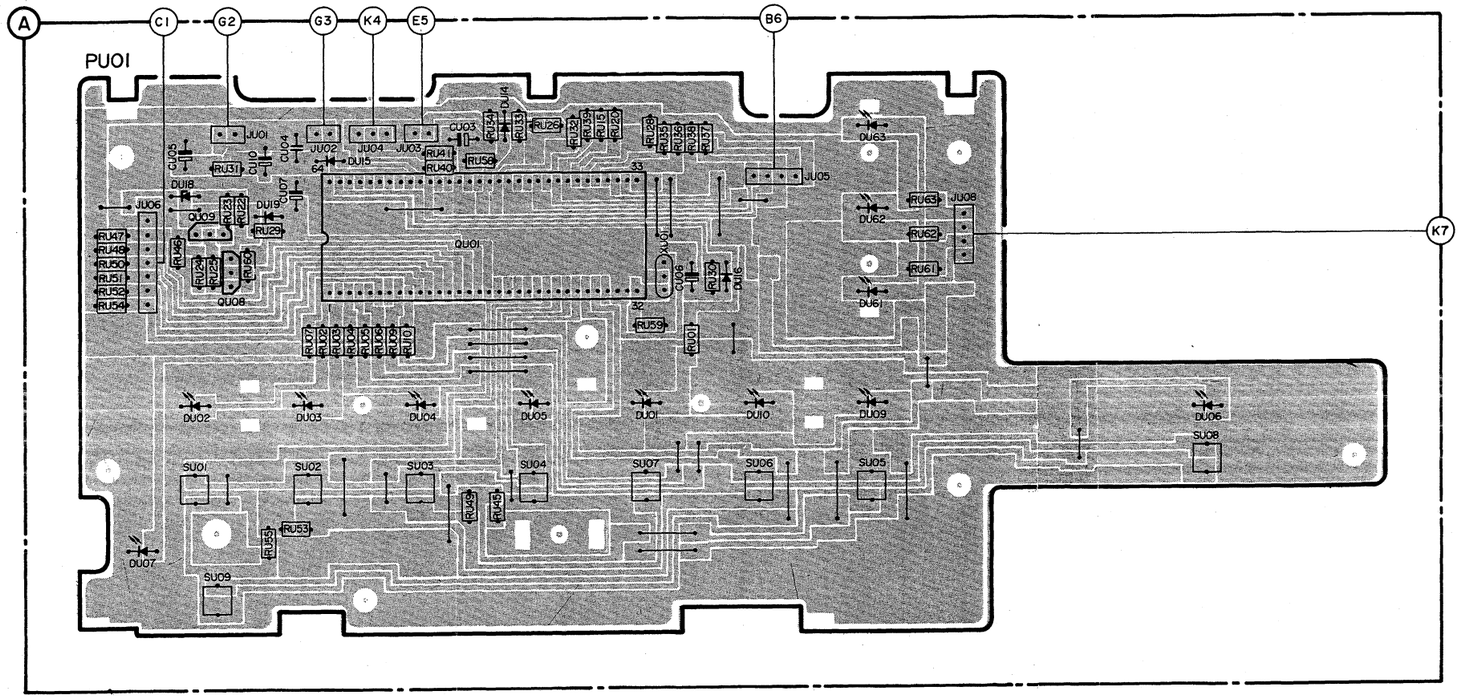
WIRING DIAGRAMS

R	RU46∼RU48 RU31 RU29 RU02∼RU07 RU09 RU10 RU41 RU40 RU58 RU32∼RU34 RU15 RU20 RU28 RU35∼RU39 RU61∼RU63 RU54 RU50∼RU52 RU22∼RU25 RU60 RU55 RU53 RU49 RU45 RU26 RU59 RU01 RU30	R
C	CU05 CU11 CU04 CU07 CU03 CU06	C
Q	QU09 QU08 QU01	Q
D	DU07 DU18 DU02 DU19 DU03 DU15 DU04 DU14 DU05 DU01 DU16 DU10 DU09 DU61∼DU63 DU06	D
S – X	SU01 SU09 SU02 SU03 SU04 SU07 XU01 SU06 SU06 SU08	S – X

MICROPROCESSOR/CONTROL/LED INDICATION



Carbon film	0.2 W	70°C 5%
Carbon film	0.33 W	70°C 5%
Metal film	0.33 W	70°C 5%
Carbon film	0.5 W	70°C 5%
Carbon film	0.67 W	70°C 5%
Carbon film	1.15 W	70°C 5%

Ⓒ Chip component

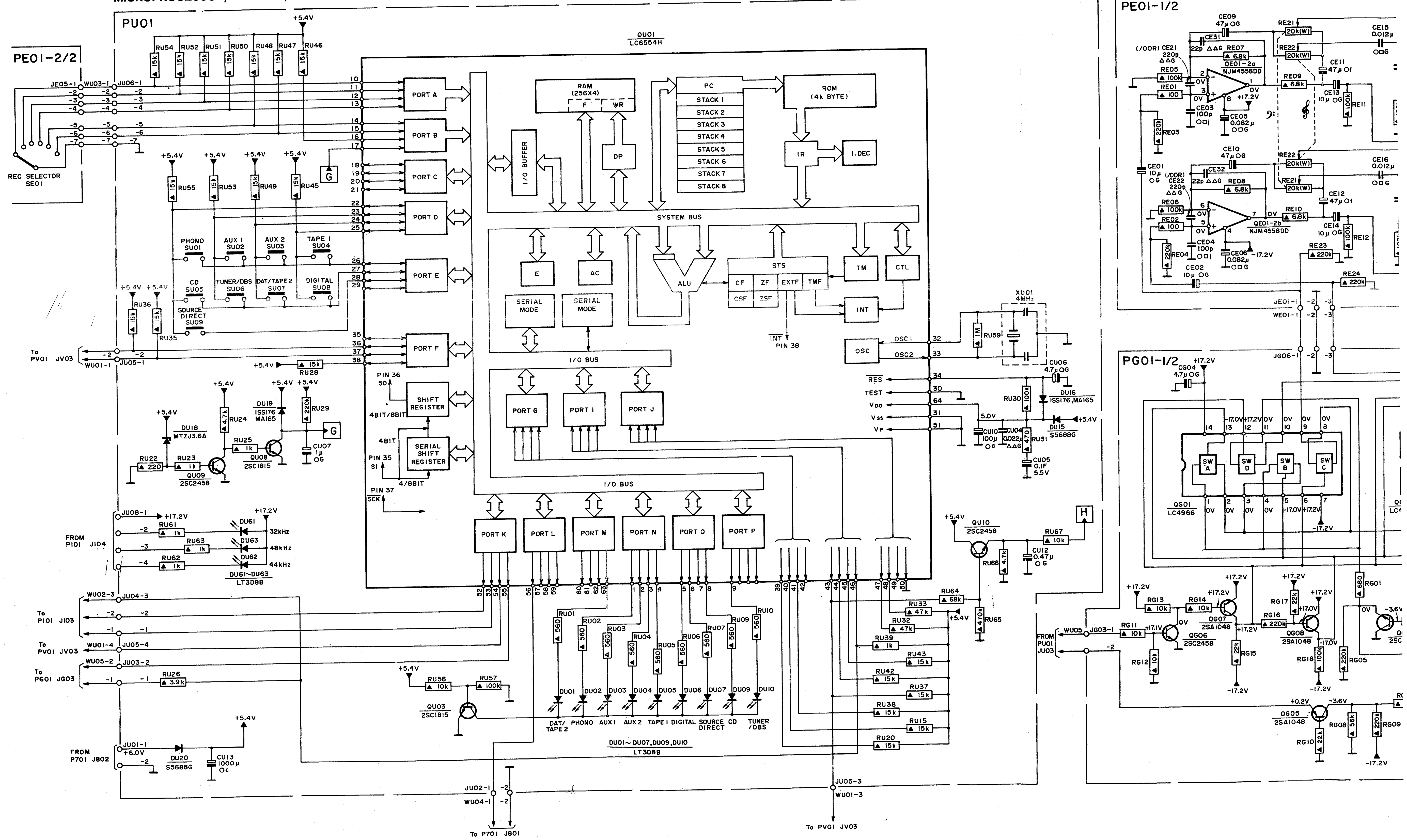
Ceramic plate Tuning ⩽ 120 pF NP.0 Others		2% —20/+80%
Polyester flat foil		10%
Metalized polyester flat film		10%
Polyester flat foil small size (Mylar)		10%
Polysterene film/foil		1%
Tubular ceramic		
Miniature single		
Subminiature tantalum		± 20%

*a	= 2,5 V
b	= 4 V
c	= 6,3 V
d	= 10 V
e	= 16 V
f	= 25 V
g	= 40 V
h	= 63 V
j	= 100 V
l	= 125 V
m	= 150 V
n	= 160 V
q	= 200 V
r	= 250 V
s	= 300 V
t	= 350 V
u	= 400 V
v	= 500 V
w	= 630 V
x	= 1000 V
A	= 1,6 V
B	= 6 V
C	= 12 V
D	= 15 V
E	= 20 V
F	= 35 V
G	= 50 V
H	= 75 V
I	= 80 V

27 037A/C

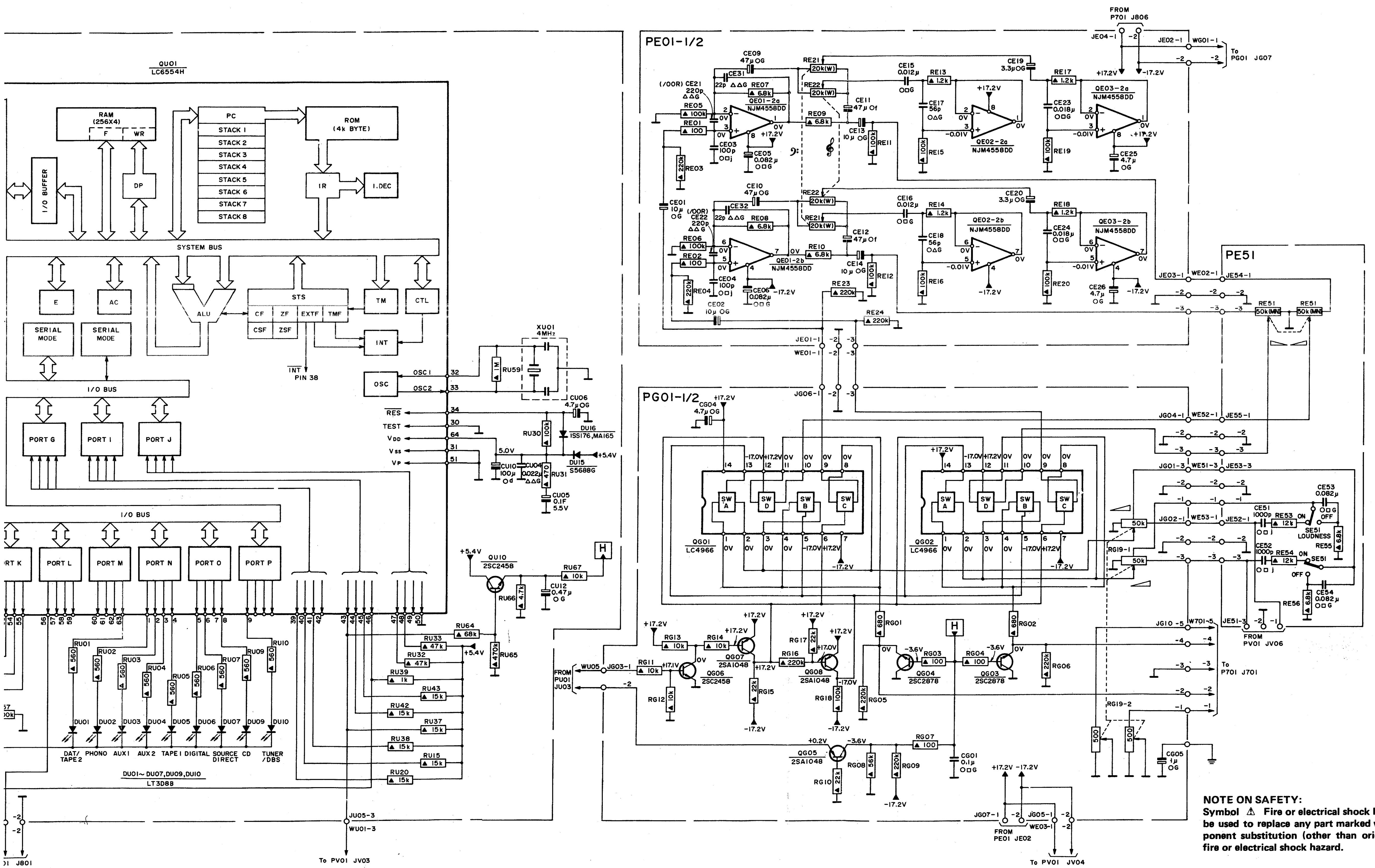
R	RU36 RU35 RU45~RU55 RU59 RU30 RU31 RE01~RE12 RE21~RE24
	RU22~RU26 RU61~RU63 RU29 RU56 RU57 RU01~RU07 RU09 RU10 RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~ RU67 RG10~RG18
C	CU13 CU07 CU10 CU04~CU06 CU12 CE01~CE06 CE21 CE22 CG04 CE09 CE10 CE31 CE32 CE11~CE18
D-S	SE01 DU18 DU20 SU01~SU09 DU61~DU63 DU19 DU01~DU07 DU09 DU10 DU16 DU15
Q-L-X	QU09 QU08 QU03 QU01 QU10 XU01 QE01 QG01 QG05~QG08 QG02~QG

MICROPROCESSOR/CONTROL/LED INDICATION



SCHEMATIC DIAGRAMS

RU59 RU30 RU31 RE01~RE12 RE21~RE24 RE13~RE20 RE51	R
RU01~RU07 RU09 RU10 RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~RU67 RG10~RG18 RG01~RG09 RG19 RE53~RE56	
CU10 CU04~CU06 CU12 CE01~CE06 CE21 CE22 CG04 CE09 CE10 CE31 CE32 CE11~CE18 CG01 CE19 CE20 CE23~CE26 CG05 CE51~CE54	C
DU01~DU07 DU09 DU10 DU16 DU15 SE51	D-S
QU01 QU10 XU01 QE01 QG01 QG05~QG08 QG02~QG04 QE02 QE03	Q-L-X



NOTE ON SAFETY:
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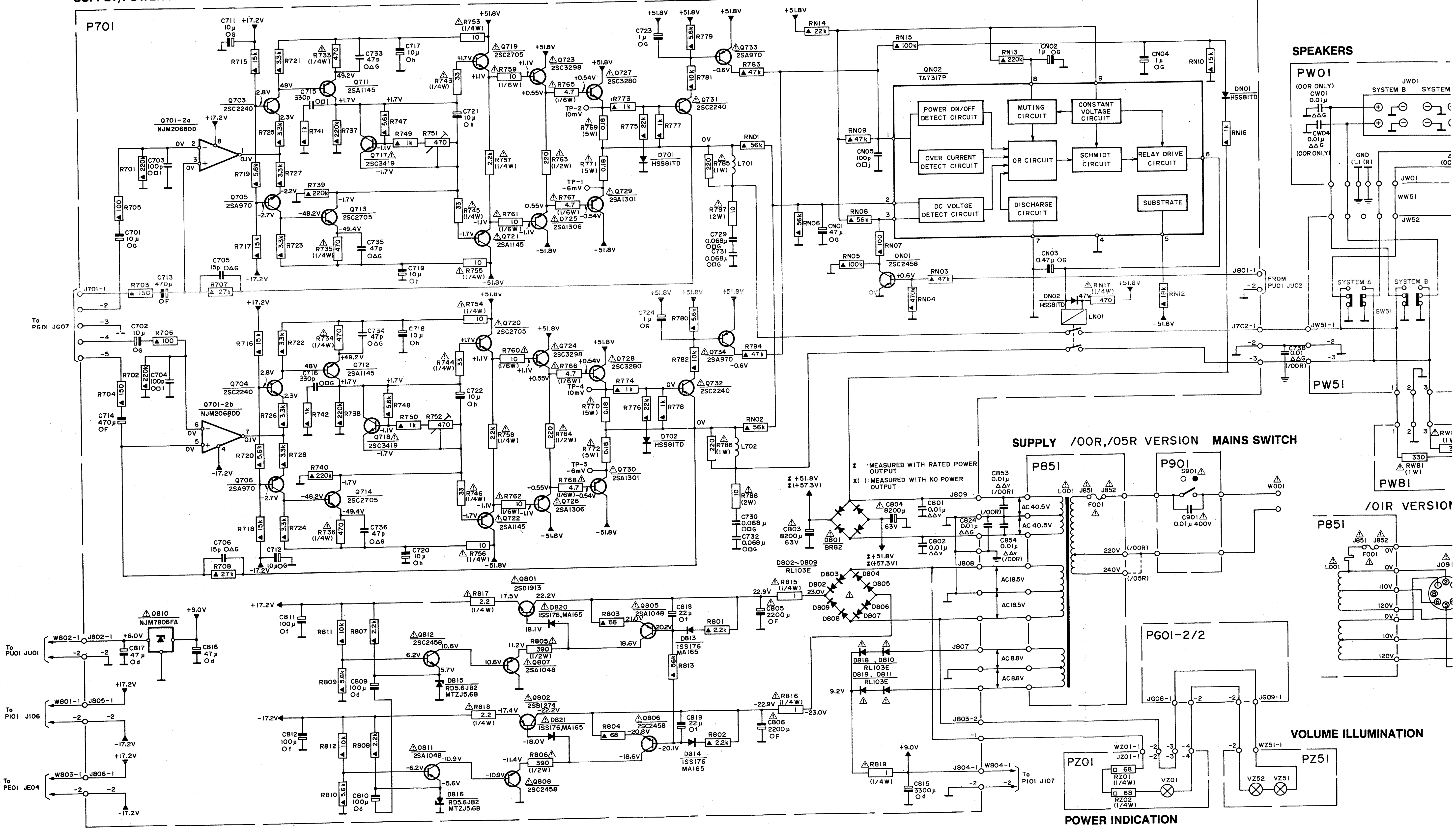
SCHEMATIC DIAGRAMS

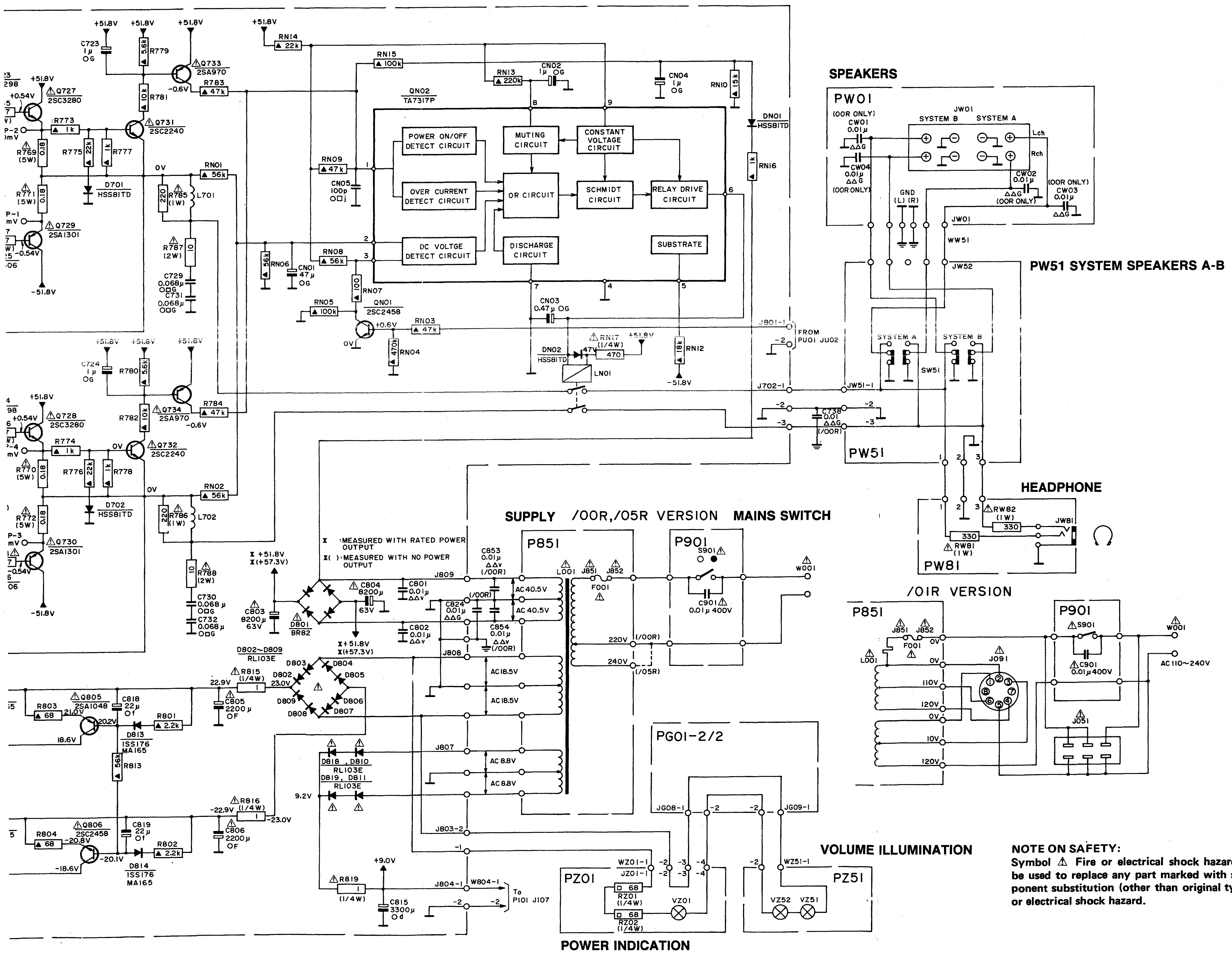
R	R701~R708, R715~R728, R733~R742, R743~R756, R757~R772, R773~R788, RN01 RN02, RN14 RN03~RN09, RN15, RN13, RN17, RN12, RN10 RN16, RW81 R'
	R807~R812, R817 R818, R803~R806, R813, R801 R802, R815 R816 R819, RZ01 RZ02
C	C701~C706 C713, C711 C712, C715 C716, C733~C736 C717~C722, C723 C724, C729~C732, CN01, CN05, CN02~CN04, CW01~CW04
	C714 C817 C816, C809~C812, C818 C819, C801~C806, C815, C824 C853 C854, C901, C738
D-L	D815 D816, D820 D821, D701 D702 D813 D814, L701 L702, D801~D811 D818 D819, LN01 DN02 L001, DN01
Q-S-V	Q810, Q701, Q703~Q706, Q711~Q714 Q717 Q718 Q811 Q812, Q719~Q730 Q801 Q802 Q807 Q808, Q805 Q806 Q731~Q734, QN01, QN02, VZ01 S901, VZ52 VZ51, SW51

SUPPLY/POWER AMPLIFIER



SCHEMATIC DIAGRAMS

·R772 R773~R788 RN01 RN02 RN14 RN03~RN09 RN15 RN13 RN17 RN12 RN10 RN16	R
~R806 R813 R801 R802 R815 R816 R819 RZ01 RZ02 RW81 RW82	R
C723 C724 C729~C732 CN01 CN05 CN02~CN04 CW01~CW04	C
C818 C819 C801~C806 C815 C824 C853 C854 C901 C738	C
D821 D701 D702 D813 D814 L701 L702 D801~D811 D818 D819 LN01 DN02 L001 DN01	D-L
·07 Q808 Q805 Q806 Q731~Q734 QN01 QN02 VZ01 S901 VZ52 VZ51 SW51	Q-S-V



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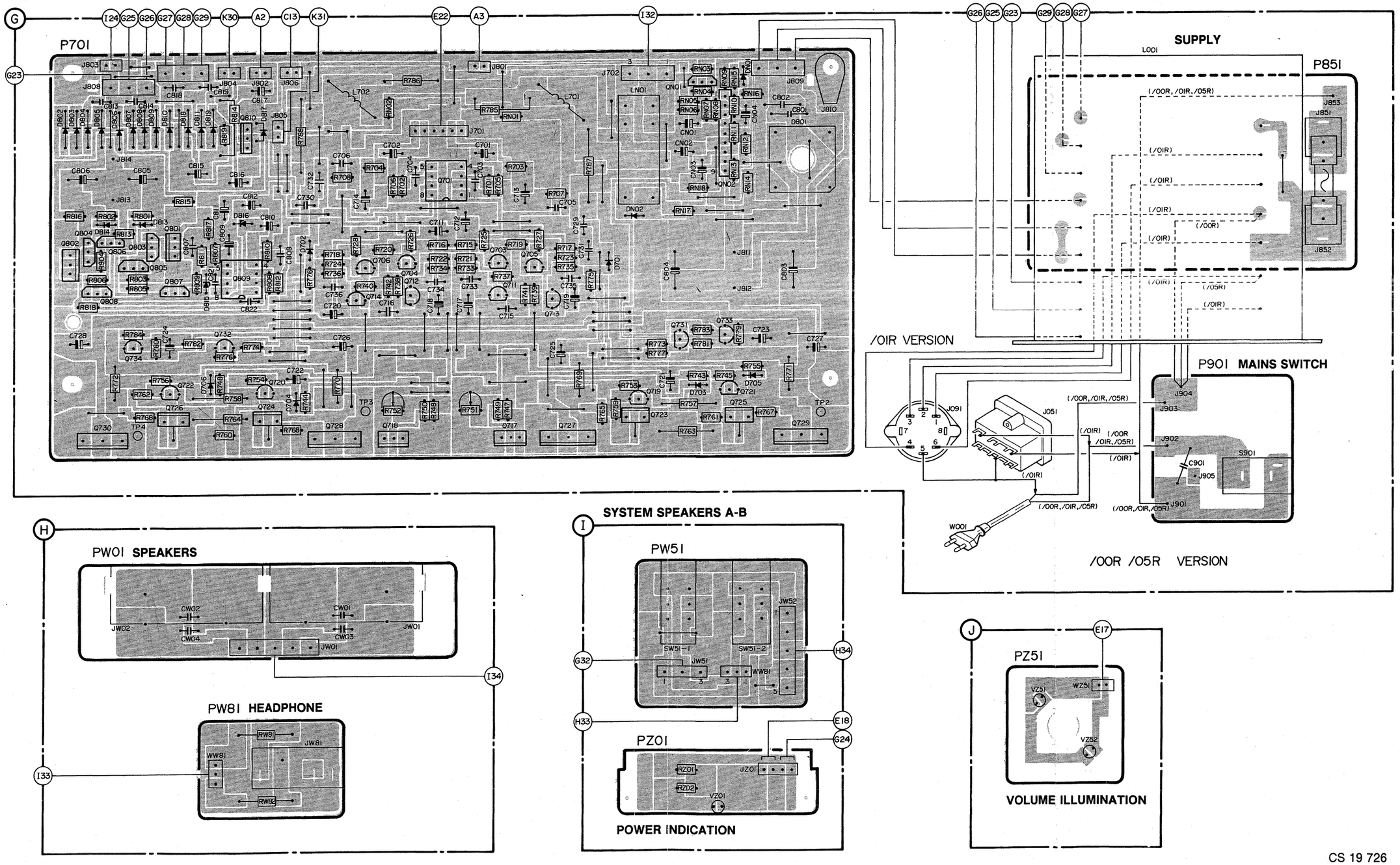
WIRING DIAGRAMS

R	R816 R818 R801～R806 R815 R817 R819 R814 R807 R812 R788 R708 RN02 R786 R701～R707 R785 RN01 R787 RN03～RN18	R
	R813 R784 R780 R782 R776 R774 R764 R760 R776 R718 R724 R736 R728 R740 R720 R742 R738 R726 R716 R722 R734 R715 R721 R733 R727 R717 R723 R735 RZ01 RZ02 R773 R777 R783 R781 R779	
	R772 R762 R768 R756 R748 R758 RW81 RW82 R754 R768 R744 R770 R747～R752 R725 R737 R719 R741 R739 R769 R775 R765 R759 R753 R757 R763 R761 R743 R745 R755 R767 R771	
C	C806 C813 C805 C814 C818 C815 C819 C816 C807～C812 C817 C730 C732 C706 C701～C704 C711～C714 C705 C729 C731 C804 CN01～CN04 C801～C803	C
	C728 C724 C821 CW02 CW04 C822 C722 C736 C720 C726 C716 CW01 CW03 C734 C718 C717 C733 C715 C725 C735 C719 C721 C723 C727	
Q	Q801～Q808 Q809 Q810 Q703～Q706 Q701 Q711～Q714 QN01 QN02	Q
	Q730 Q734 Q726 Q722 Q732 Q724 Q720 Q728 Q718 Q717 Q727 Q719 Q723 Q731 Q733 Q725 Q721 Q729	
D	D802～D811 D814 D813 D818 D819 D815 D706 D816 D817 D704 D702 D701 DN02 D703 D705 D801	D
F-L-S-VW	L702 L701 LN01 VZ01 SW51 W001 VZ51 VZ52 L001 F001	F-L-S-V-W

SUPPLY/POWER AMPLIFIER



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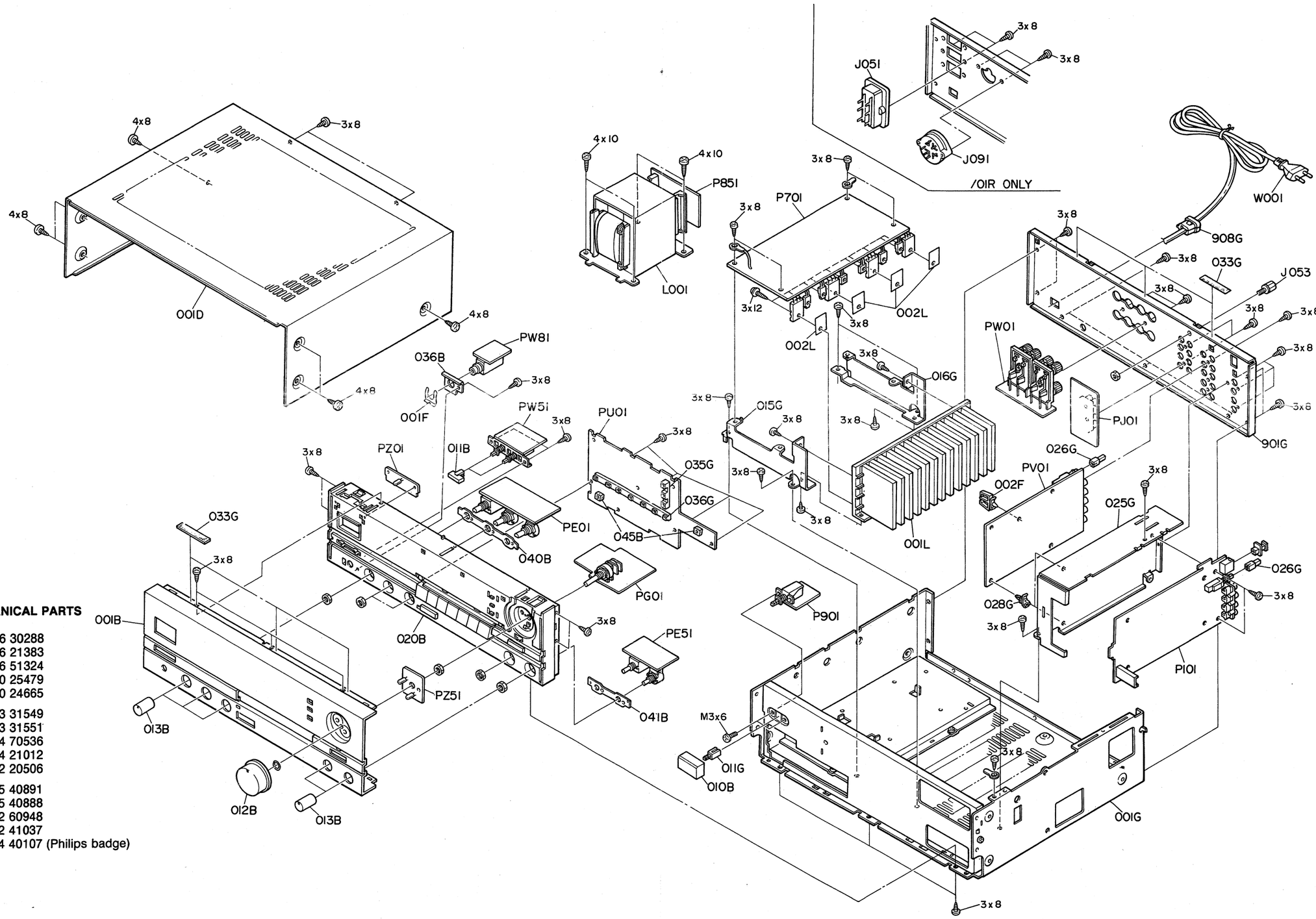
EXPLODED VIEW



LIST OF MECHANICAL PARTS

J053	4822 266 30288
L001	4822 146 21383
001B	4822 426 51324
010B	4822 410 25479
011B	4822 410 24665
012B	4822 413 31549
013B	4822 413 31551
020B	4822 464 70536
011G	4822 404 21012
026G	4822 412 20506
035G	4822 255 40891
036G	4822 255 40888
908G	4822 532 60948
001F	4822 462 41037
	4822 454 40107 (Philips badge)

Note: Only the parts provided with a Service codenumber are available as service spare parts

CE01,CE02, CE13,CE14	4822 124 22571	Cap. Electr. 10µF 50V
CE09,CE10, CN01	4822 124 22276	Cap. Electr. 47µF 50V
CE11,CE12	4822 124 22698	Cap. Electr. 47µF 25V
CE19,CE20	4822 124 22696	Cap. Electr. 3.3µF 50V
CE25,CE26, CG02,CG04, CU06,CV13, CV14	4822 124 22274	Cap. Electr. 4.7µF 50V
CG05, CN02,CN04, CU07,C116, C121÷C123, C128,C179, C180	4822 124 41543	Cap. Electr. 1µF 50V
CU12,C124	4822 124 22273	Cap. Electr. 0.47µF 50V
C165÷C170, C415, C416,C701, C702,C711, C712	4822 124 22571	Cap. Electr. 10µF 50V
CU05	4822 124 41592	Super Cap. 0.1F 5.5V
CU10,C809, C810	4822 124 90353	Cap. Electr. 100µF 10V
CU13	4822 124 22694	Cap. Electr. 1000µF 63V
C104,C106, C108,C117, C130,C173, C174,C816, C817	4822 124 22275	Cap. Electr. 47µF 10V
C147,C171, C172	4822 124 41539	Cap. Electr. 47µF 16V
C175,C176	4822 124 22814	Cap. Electr. 1000 µF10 V
C407,C408	4822 124 22279	Cap. Electr. 510µF 10V
C419,C420	4822 124 22274	Cap. Electr. 4.7µF 50V
C421,C422	4822 124 22278	Cap. Electr. 51µF 10V
C713,C714	4822 124 41541	Cap. Electr. 470µF 35V
C717÷C720	4822 124 22693	Cap. Electr. 10µF 63V
C803,C804	4822 124 22691	Cap. Electr. 8200µF 63V
C805,C806	4822 124 22695	Cap. Electr. 2200µF 35V
C811,C812	4822 124 41535	Cap. Electr. 100µF 25V
C815	4822 124 22697	Cap. Electr. 3300µF 10V
C901	4822 124 33276	Cap. Ceramic. 0.01µF 400V

RE21,RE22	4822 101 30574	Potm. 20K bass, treble
RE51	4822 101 30575	Potm. 50K balance, volume
RG19	4822 102 30466	Potm. 50K master volume
RN17	4822 116 81316	Res. fusible 470Ω 1/4W
RW81,RW82	4822 111 50474	Res. safety 330Ω 1W
R175,R176	4822 116 60342	Res. safety 180Ω 1W
R177	4822 116 60527	Res. safety 1.8Ω 1W
R178	4822 115 90314	Res. fuse 68Ω 1/4W
R733÷R736	4822 116 81316	Res. fusible 470Ω 1/4W
R743÷R746	4822 115 90198	Res. fuse 33Ω 1/4W
R751,R752	4822 100 11426	Potm. trimmer 470Ω
R753÷R756	4822 115 90166	Res. fuse 10Ω 1/4W
R757,R758	4822 116 81315	Res. fuse 2.2K 1W
R759÷R762	4822 111 91291	Res. safety 10Ω 1/6W
R763,R764	4822 116 60319	Res. fusible 220Ω 1/2W
R765÷R768	4822 116 80955	Res. safety 4.7Ω 1/4W
R769÷R772	4822 116 80153	Res. metal 0.18Ω 5W
R785,R786	4822 116 60246	Res. safety 220Ω 1W
R787,R788	4822 111 90726	Res. safety 10Ω 2W
R815,R816	4822 116 52976	Res. safety 1Ω 1/4W
R817÷R818	4822 116 60309	Res. fusible 2.2Ω 1/4W
R819	4822 116 60307	Res. fusible 1Ω 1/4W

C3419 Y	4822 130 60117
2SA970 (GR)	4822 130 42949
2SA970 GR or BL	4822 130 42951
2SA1048 Y or GR	4822 130 60107
2SA1145 O or Y	4822 130 42999
2SA1301 R or O	4822 130 60109
2SA1306 O or Y	4822 130 61358
2SB1274 Q,R	4822 130 61359
2SC2240 GR or BL	4822 130 43233
2SC2240 GR	4822 130 43231
2SC2458 Y or GR	4822 130 60839
2SC2705 0 or Y	4822 130 43283
2SC2878 A or BR	4822 130 43819
2SC3280 R or O	4822 130 60116
2SC3298 O or Y	4822 130 61362
2SD1913 Q,R	4822 130 61363
2SK369 BL	4822 130 42839
2SK372 GR/BL	4822 130 42842

LC6554H-3842	4822 209 73955
LC4966	4822 209 83804
LC7821	4822 209 72357
NJM-2068-DD	4822 209 73064
NJM4558D-D	4822 209 83631
NJM4560D-D	4822 209 83274
NJM78LO5A	4822 209 70082
NJM7806FA	4822 209 73674
NJM79L05A	4822 209 83825
TA7317P	4822 209 83312
TC74HC00P	4822 209 72322
TC74HCU04P	4822 209 72323
TC74HC74P	4822 209 72333
TC74HC86P	4822 209 73676
TDA1541A/N2	4822 209 72969
µPD4555	4822 209 11767
YM3623B	4822 209 73668
2SAA7220P/B	4822 209 72545

BR82	4822 130 81093
HSS81TD	4822 130 80837
LT3D8B RED	4822 130 80326
MTZJ3.6A	4822 130 80316
MTZJ3.9A	4822 130 80132
NTJ15B	4822 130 80322
RL103E	4822 130 32508
RD4.7JB2,MTZJ4.7B	4822 130 33759
RD5.6JB2,MTZJ5.6B	4822 130 33948
S5688G	4822 130 80839
1SS176,MA165,1SS254	4822 130 33305

MISCELLANEOUS

F001	4822 253 40166	Fuse T2-5A 250V
JJ01,JJ02	4822 265 30512	Jack 4p
JV01	4822 267 20348	Jack 4p
JV02	4822 266 30285	Jack 6p
JW01	4822 266 30279	Speaker terminal
JW02	4822 266 30281	Speaker terminal
JW81	4822 267 30617	Headphone jack
J053	4822 290 40297	Ground terminal
J101	4822 264 30217	Connector
J102	4822 266 30324	Terminal
LN01	4822 280 91103	Relay DC 48V
L001	4822 146 21383	Transf, mains
L101,L102	4822 157 53801	Coil 147µH
L103	4822 157 53836	Coil
L105	4822 142 60388	Transf, puls
L701,L702	4822 157 51739	Coil, choke
SE01	4822 273 80336	Switch, ratary
SE51	4822 273 20307	Switch, ratary
SU01÷SU09	4822 276 12455	Switch, pushbut
SW51	4822 276 12506	Push switch
S101	4822 276 20458	Push switch
S401	4822 276 20468	Push switch
S901	4822 276 12026	Push switch
VZ01,VZ51,VZ52	4822 134 40886	Lamp 12V 75mA
XU01	4822 242 72221	Cer. filter 4 MHz
X101	4822 242 72334	Cer. filter 16,9344 MHz